INDEX

RUBBER CHEMISTRY AND TECHNOLOGY VOLUME 1, 1928

AUTHORS

Page

ABBOTT, FRANZ D. Machine for Testing Rubber Products Used to Absorb Vibration..... 503

BARY, PAUL, AND HAUSER, ERNST A. Researches on the Structure of Rubber..... 401
BEAVER, D. J., AND KELLER, T. P. Effect of Various Types of Carbon Black on Certain Physical Properties of Rubber Compounds..... 458
BEAVER, D. J. *See* Plummer, W. B.
BIERER, J. M., AND DAVIS, C. C. Specifications for Rubber Goods and the Value of Performance Tests..... 146
BIRCH, STANLEY FRANCIS. Preparation of Butadiene..... 208
BISHOP, W. S. *See* Kemp, A. R.
BRUNI, GIUSEPPE, AND GEIGER, E. New Derivatives of Rubber..... 177

CARSON, C. M. *See* Park, C. R.
CARTLIDGE, R. E., AND SNYDER, H. L. Effect of High *vs.* Low Sulfur in Vulcanizing Reclaim... 70
COOPER, LESLIE. *See* Zimmerman, Earle C.
COX, L. B., AND PARK, C. R. Carbon Blacks and Their Use in Rubber. III—Aging Effects... 475
CRISP, P. P. Open Mill Mixing *vs.* Internal Mixers..... 380
CROAKMAN, E. G. *See* Winkelmann, H. A.

DAVIS, C. C. *See* Bierer, J. M.
DEPEW, HARLAN A. *See* McKee, R. H.
DINSMORE, R. P., AND VOGT, W. W. A Scheme for Accelerator Classification..... 410

FISHER, HARRY L. Conversion of Rubber into Thermoplastic Products with Properties Similar to Gutta-Percha, Balata, and Shellac. I—Methods of Preparation and General Properties. 1
FISHER, HARRY L., AND GRAY, A. E. Chemical Unsaturation of Rubbers Vulcanized with Poly-nitro Compounds and Benzoyl Peroxide, and Its Possible Bearing on Vulcanization..... 101
FISHER, HARRY L., AND MCCOLM, EUGENE M. Conversion of Rubber into Thermoplastic Products with Properties Similar to Gutta-Percha, Balata, and Shellac. II—Chemistry of the Reaction..... 11
FOL, J. G., AND DEVISSER, W. Latex Contaminated with Copper Compounds as a Source of Danger of Fire..... 288
FRY, J. D., AND PORRITT, B. D. Effect of Heat in Raw Rubber..... 299

GEIGER, E. *See* Bruni, G.
GOODWIN, NORRIS, AND PARK, C. R. Carbon Blacks and Their Use in Rubber (I) 240; (II).... 257
GRAY, A. E. *See* Fisher, Harry L.
GRAY, HAROLD. Protective Paint from Rubber..... 89
GRENQUIST, ERNST A. Dispersion of Pigments in Rubber. I—Microscopical Studies of Agglomeration and Flocculation..... 441

HAUSER, ERNST. *See* Bary, Paul.
HAUSHALTER, F. H., JONES, WEBSTER N., AND SCHADE, J. W. Effects of Ozone on Stretched Rubber..... 120

JENNINGS, H. K. Sources and Application of Cooling Water..... 367
JOHNSON, C. R. Carbon Black. I—A Study of Its Volatile Constituents..... 485
JONES, WEBSTER N. *See* Haushalter, F. H.; Taylor, Bert S.

KELLER, T. P. *See* Beaver, D. J.
KELLY, ARTHUR, TAYLOR, BERT S., AND JONES, WEBSTER N. Aging of Stretched Rubber..... 106
KEMP, A. R., BISHOP, W. S., AND LACKNER, T. J. Direct Determination of Rubber in Soft Vulcanized Rubber..... 211
KIMISHIMA, TAKEO. The Reactions of Aniline and Its Homologs as Accelerators of Vulcanization. 307

LACKNER, T. J. *See* Kemp, A. R.

MACALLUM, A. D., AND WHITBY, G. S. A New Tetramethylbutadiene..... 341
MCCOLM, EUGENE M. *See* Fisher, Harry L.
MCKEE, RALPH H., AND DEPEW, HARLAN A. "Normal Aging" of Compounded Rubber..... 218
MIEDEL, H. *See* Pummerer, R.
MILLER, GEORGE W. *See* Shepard, Norman.

NAGLE, P. G. The Mercury Vapor Lamp..... 284

PAHL, H. *See* Pummerer, R.
PALMER, HENRY F. *See* Shepard, Norman.
PARK, O. R., CARSON, C. M., AND SEBRELL, L. B. Effect of Heat on Raw Rubber..... 193
See Cox, L. B.; Goodwin, Norris.
PARTENHEIMER, J. E., *et al.* Importance of Temperature and Humidity Control in Rubber Testing..... 182, 515
PAULY, H. Color Reactions of Rubber..... 361
PEARSALL, DAVID E. Influence of the Sulfur-Rubber Ratio in the Physical Properties of Hard Rubber..... 137
PHYSICAL TESTING COMMITTEE. Importance of Temperature and Humidity Control in Rubber Testing..... 182, 515

Page

PICKERING, N. W. Chilled Iron Rolls in the Rubber Industry 369
PLUMMER, W. B., AND BEAVER, D. J. Abrasion Tests of Rubber Stocks Containing Various Types of Carbon Black 465
PORRITT, B. D. *See* Fry, J. D.
PUMMERER, R., AND MIEDEL, H. Methods for the Purification of Rubber Hydrocarbons 163
PUMMERER, R., AND PAHL, H. Preparation of Pure Rubber from Latex by Means of Alkali, and Its Separation into Sol-Rubber and Gel-Rubber 167

SCHADE, J. W. *See* Haushalter, F. H.
SEBRELL, L. B. *See* Park, C. R.
SHEPARD, NORMAN A., PALMER, HENRY F., AND MILLER, GEORGE W. Rate of Cure of Reclaimed Rubber 25
SHEPPARD, J. R., AND WIEGAND, W. B. Evaluation of Variable-Temperature Cures 423
SHOAFF, PAUL S. Factors in Processing Reclaimed Rubber 59
Factors in Supply and Use of Cooling Water 364
Power Variables in Milling and Mixing Rubber 383
SMITH, G. B. L., AND WEISS, A. J. Activity of Certain Aryl-Substituted Biguanides as Accelerators of Vulcanization 113
SNYDER, H. L. *See* Cartlidge, R. E.
SPENCE, DAVID. Recent Scientific Advances in Guayule 357

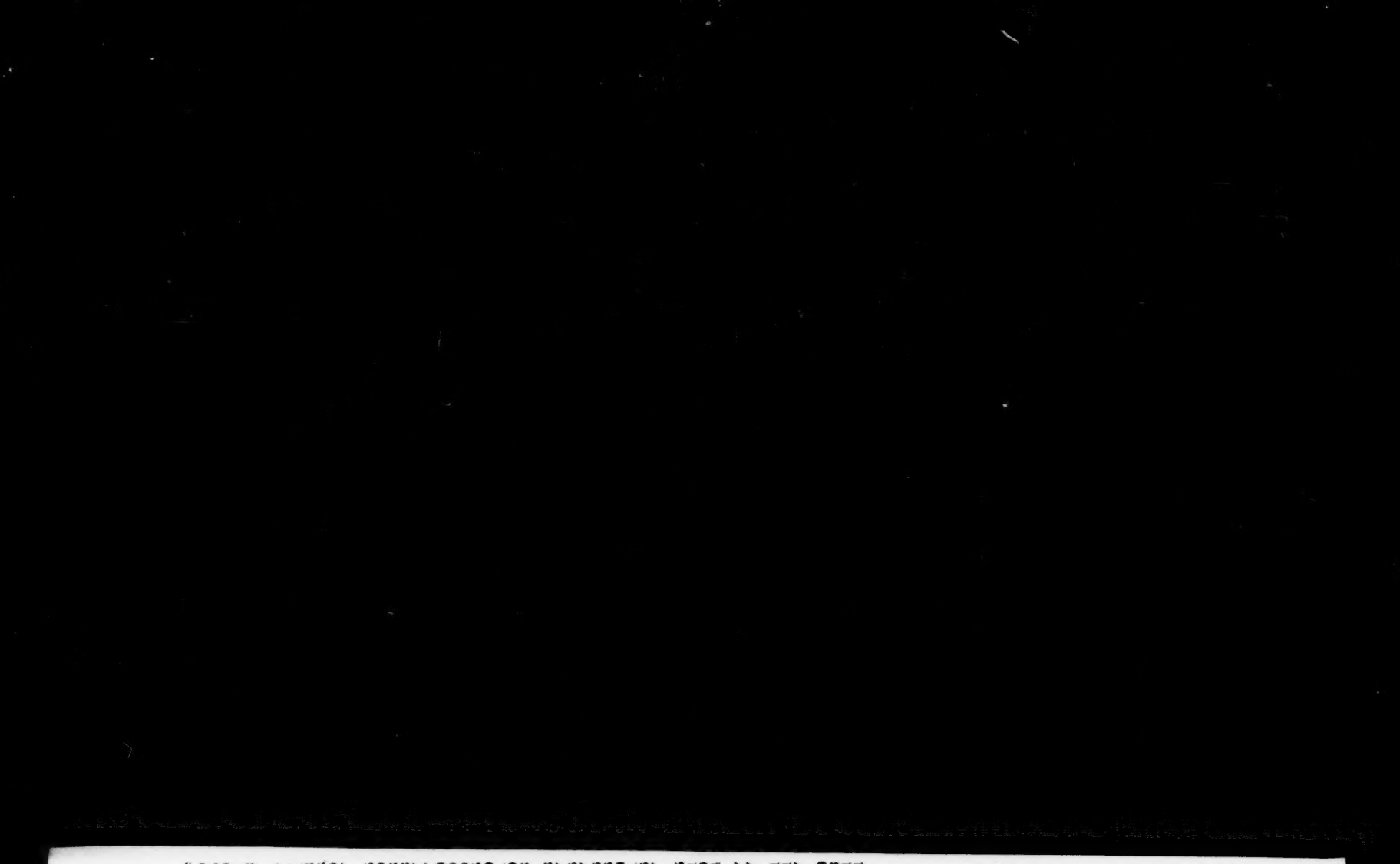
TAYLOR, BERT, S. *See* Kelly, Arthur.
TWISS, DOUGLAS F. Some Features of Sulfur in Rubber 346

VAN DER MEIJDEN, H. *See* Van Rossem.
VAN ROSSEM, A., AND VAN DER MEIJDEN, H. Plasticity and Elasticity of Rubber 393
VISSER, W. DE. *See* Fol, J. C.
VOGT, W. W. Analysis of a Typical Angle Abrasion Machine 126
Value of the Rubber Hydrocarbon in Reclaimed Rubber 50
See Dinsmore, R. P.
VRIES, O. DE. Plasticity Determinations in Crude Rubber 291

WEISS, A. J. *See* Smith, G. B. L.
WHITBY, G. S. *See* Macallum, A. D.
WIEGAND, W. B. *See* Sheppard, J. R.
WINKELMANN, H. A., AND CROAKMAN, E. G. Pigment Reënforcement of Reclaimed Rubber 79

ZIMMERMAN, EARLE C. Experiences with Mixing Mill Roll Speeds, and Speed Ratios, and Batch Sizes 388
ZIMMERMAN, EARLE C., AND COOPER, L. V. Softeners and Antisofteners 498

SUBJECT

	Page
Abrasion Machine, Analysis of a Typical Angle	126
Abrasion Tests of Rubber Stocks Containing Various Types of Carbon Black	465
Accelerator Classification, A Scheme for	410
Accelerators of Vulcanization, Aryl-Substituted Biguanides as	113
Accelerators of Vulcanization, Reactions of Aniline and Its Homologs as	307
Activity of Certain Aryl-Substituted Biguanides as Accelerators of Vulcanization	113
Agglomeration in Rubber	441
Aging Effects of Carbon Blacks	475
Aging of Compounded Rubber, "Normal"	218
Aging of a Tread Compound	97
Aging of Stretched Rubber	106
Analysis of a Typical Angle Abrasion Machine	126
A New Tetramethylbutadiene	341
Aniline and Its Homologs as Accelerators of Vulcanization, The Reactions of	307
Antisofteners and Softeners	498
A Scheme for Accelerator Classification	410
Benzoyl Peroxide, Chemical Unsaturation of Rubbers Vulcanized with	101
Biguanides as Accelerators of Vulcanization	113
Butadiene, Preparation of	208
Carbon Black, Abrasion Tests of Rubber Stocks Containing	465
Carbon Black, A Study of Its Volatile Constituents (I)	485
Carbon Black, Effect on Certain Physical Properties of Rubber Compounds of	458
Carbon Blacks and Their Use in Rubber: Aging Effects (III)	475
Comparative Properties and Tests in Uncured Rubber (I)	240
Experiments in Cured Rubber (II)	257
Chemical Unsaturation of Rubbers Vulcanized with Polynitro Compounds and Benzoyl Peroxide, and Its Possible Bearing on Vulcanization	101
Chilled Iron Rolls in the Rubber Industry	369
Color Reactions of Rubber	361
Conversion of Rubber into Thermoplastic Products with Properties Similar to Gutta-Percha, Balata, and Shellac:	
I—Methods of Preparation and General Properties	1
II—Chemistry of the Reaction	11
Cooling Water, Factors in Supply and Use of	364
Cooling Water, Sources and Applications of	367
Copper Compounds as a Source of Danger of Fire, Latex Contaminated with	288
Crude Rubber, Plasticity Determinations in	291
Cures, Evaluation of Variable-Temperature	423
Derivatives of Rubber, New	177
Direct Determination of Rubber in Soft Vulcanized Rubber	211
Dispersion of Pigments in Rubber. I. Microscopical Studies of Agglomeration and Flocculation	441
Effect of Certain Metallic Salts on the Aging of a Tread Compound	97
Effect of Heat in Raw Rubber in the Presence and Absence of Air, The	299
Effect of Heat on Raw Rubber	193
Effect of High *vs.* Low Sulfur in Vulcanizing Reclaim	70
Effect of Various Types of Carbon Black on Certain Physical Properties of Rubber Compounds	458
Effects of Ozone on Stretched Rubber	120
Elasticity of Rubber	393
Evaluation of Variable-Temperature Cures	423
Experiences with Mixing Mill Roll Speeds and Speed Ratios, and Batch Sizes	388
Experiments in Cured Rubber (Carbon Black)	257
Factors in Processing Reclaimed Rubber	59
Factors in Supply and Use of Cooling Water	364
Flocculation in Rubber	441
Gel-Rubber, The Preparation from Pure Rubber of	167
Guayule, Recent Scientific Advances in Connection with	357
Hard Rubber, Influence of the Sulfur-Rubber Ratio in Physical Properties of	137
Importance of Temperature and Humidity Control in Rubber Testing	182, 515
Influence of the Sulfur-Rubber Ratio in the Physical Properties of Hard Rubber	137
Iron Rolls in the Rubber Industry, Chilled	369
Latex Contaminated with Copper Compounds as a Source of Danger of Fire	288
Machine for Testing Rubber Products Used to Absorb Vibration	503
Mercury Vapor Lamp: Its Use in a Rubber Factory, The	284
Methods for the Purification of Rubber Hydrocarbons	163
Milling and Mixing Rubber, Power Variables in	383
Mixing Mill Roll Speeds and Speed Ratios, and Batch Sizes	388
Mixing, Open Mill *vs.* Internal Mixers	380
New Derivatives of Rubber	177
"Normal Aging" of Compounded Rubber	218
Open Mill Mixing *vs.* Internal Mixers	380
Ozone on Stretched Rubber, Effects of	120

	Page
Paint from Rubber, Protective	89
Performance Tests, Specifications for Rubber Goods and Value of	146
Pigment Reënforcement of Reclaimed Rubber	79
Pigments in Rubber, Dispersion of	421
Plasticity and Elasticity of Rubber	393
Plasticity Determinations in Crude Rubber. Influence of Different Factors on the Changes in Plasticity when Keeping the Rubber	291
Plasticity of Raw Rubber, Changes when Stored	291
Polynitro Compounds, Chemical Unsaturation of Rubbers Vulcanized with	101
Power Variables in Milling and Mixing Rubber	383
Preparation of Butadiene	208
Protective Paint from Rubber	89
Pure Rubber, Preparation from Latex by Means of Alkali	167
Rate of Cure of Reclaimed Rubber	25
Raw Rubber, Effect of Heat in Presence and Absence of Air	299
Raw Rubber, Effect of Heat on	193
Raw Rubber, Plasticity and Elasticity of	393
Reactions of Aniline and Its Homologs as Accelerators of Vulcanization	307
Recent Scientific Advances in Connection with Guayule	357
Reclaimed Rubber, Effect of High *vs.* Low Sulfur in Vulcanizing	70
Reclaimed Rubber, Factors in Processing	59
Reclaimed Rubber, Pigment Reënforcement of	79
Reclaimed Rubber, Rate of Cure of	25
Reclaimed Rubber, Value of Rubber Hydrocarbon in	50
Researches on the Structure of Rubber	401
Rubber Hydrocarbon in Reclaimed Rubber, Value of	50
Rubber Hydrocarbons, Purification of	163
Softeners and Antisofteners	498
Sol Rubber, Preparation from Pure Rubber	167
Some Features of Sulfur in Rubber Manufacture	346
Sources and Application of Cooling Water	367
Specifications for Rubber Goods and the Value of Performance Tests	146
Stretched Rubber, Aging of	106
Stretched Rubber, Effects of Ozone on	120
Structure of Rubber, Researches on the	401
Sulfur in Rubber Manufacture, Some Features of	346
Sulfur-Rubber Ratio in Hard Rubber	137
Testing, Temperature, and Humidity Control in Rubber	182, 515
Tetramethylbutadiene, A New	341
The Effect of Heat on Raw Rubber in Presence and Absence of Air	299
The Mercury Vapor Lamp: Its Use in a Rubber Factory	284
The Preparation of Pure Rubber from Latex by Means of Alkali, and Its Separation into Sol-Rubber and Gel-Rubber	167
The Reactions of Aniline and Its Homologs as Accelerators of Vulcanization	307
Thermoplastic Products from Rubber:	
I—Preparation and Properties	1
II—Chemistry of the Reaction	11
Tread Compound, Aging of a	97
Value of the Rubber Hydrocarbon in Reclaimed Rubber	50
Vibration, Machine for Testing Rubber Products Used to Absorb	503
Vulcanization, Chemical Unsaturation of Rubbers in Connection with	101
Vulcanized Rubber, Direct Determination of Rubber in Soft	211